

Fact Sheet



For Final Renewal Permitting Action Under 45CSR30 and Title V of the Clean Air Act

Permit Number: **R30-10700010-2010, Part 1 of 5**
Application Received: **December 17, 2009**
Plant Identification Number: **10700010**
Permittee: **SABIC Innovative Plastics US LLC**
Mailing Address: **P.O. Box 68, Washington, WV 26181**

Issued: October 21, 2010

Physical Location: Washington, Wood County, West Virginia
UTM Coordinates: 441.62 km Easting • 4,345.3 km Northing • Zone 17
Directions: South of Washington on State Route 892, Wood County

Facility Description

Thermoplastics Manufacturing Site. This is a three-stage manufacturing facility producing elastomers and thermoplastic resins used in automotive, electronic, and pipe industries among others.

The facility SIC Code: 2821, 2822, and 2899

For the purpose of the Title V permitting process the facility is divided into 5 major areas:

Title V Permit Part No.	Facility Area
Part 1 of 5	Utilities
Part 2-5 of 5	Latex Area
	Resin Area
	Finishing Area
	Technology Area

These areas are further broken down to Emission Unit Groups.

Part 1 of 5 Permit covers the Utilities Area including the following Emission Unit Groups:

Emission Unit Group ID	Process Description
009	Tank Farm/Bulk Loading
007	Boiler House
008	Waste Water Treatment

Emissions Summary*

Plantwide Emissions Summary [Tons per Year]		
Regulated Pollutants	Potential Emissions	2008 Actual Emissions
Carbon Monoxide (CO)	188.1	31.52
Nitrogen Oxides (NO _x)	638.4	77.02
Particulate Matter (PM ₁₀)*	140.1	6.80
Total Particulate Matter (TSP)	147.6	6.80
Sulfur Dioxide (SO ₂)	455.8	11.19
Volatile Organic Compounds (VOC)	1,025.65	96.06
<i>PM₁₀ is a component of TSP.</i>		
Hazardous Air Pollutants	Potential Emissions	2008 Actual Emissions
1,3-Butadiene	76.8	2.30
Acrylonitrile	110.5	8.42
Styrene	546.5	50.16
Cumene	32.1	5.83
Xylene	15.9	4.46
Ethylbenzene	19.9	0.50
Methyl Methacrylate	86.5	3.82

Some of the above HAPs may be counted as PM or VOCs.

*Emission Summary is given for the entire facility (Part 1 of 5 and Part 2-5 of 5)

Title V Program Applicability Basis

This facility has the potential to emit over 100 TPY of Carbon Monoxide, Nitrogen Oxides, Particulate Matter, Sulfur Dioxide and VOC. Due to this facility's potential to emit over 100 tons per year of criteria pollutant, over 10 tons per year of a single HAP, and over 25 tons per year of aggregate HAPs, SABIC Innovative Plastics US LLC is required to have an operating permit pursuant to Title V of the Federal Clean Air Act as amended and 45CSR30.

Legal and Factual Basis for Permit Conditions

The State and Federally-enforceable conditions of the Title V Operating Permits are based upon the requirements of the State of West Virginia Operating Permit Rule 45CSR30 for the purposes of Title V of the Federal Clean Air Act and the underlying applicable requirements in other state and federal rules.

This facility has been found to be subject to the following applicable rules:

Federal and State:	45CSR2	Indirect Heat Exchangers
	45CSR6	Open burning prohibited.
	45CSR7	Particulate Matter from Manufacturing
	45CSR10	Emission of Sulfur Oxides
	45CSR11	Standby plans for emergency episodes.
	45CSR13	Permits for Construction, Modification, Relocation and Operation of Stationary Sources of Air Pollutants, Notification Requirements, Administrative Updates, Temporary Permits, General Permits, and Procedures for Evaluation
	WV Code § 22-5-4 (a) (14)	The Secretary can request any pertinent information such as annual emission inventory reporting.
	45CSR16	Standards of Performance for New Stationary Sources
	45CSR21	To Prevent and Control Air Pollution from the Emission of Volatile Organic Compounds
	45CSR29	Regulation Requiring the Submission of Emission Statements for VOC Emissions and Oxides of Nitrogen Emissions
	45CSR30	Operating permit requirement.
	45CSR34	Emission Standards for Hazardous Air Pollutants applicability
	40 C.F.R. 60 Subpart Db	Industrial, Commercial and Institutional steam generating units
	40 C.F.R. 61 Subpart A	General Provisions
	40 C.F.R. 61 Subpart M	Asbestos inspection and removal
	40 C.F.R. 63 Subpart A	General Provisions
	40 C.F.R. 63 Subpart F	Maintenance wastewater requirements
	40 C.F.R. 63 Subpart G	Storage vessel and Process water provisions
	40 C.F.R. 63 Subpart H	Leak Detection and Repair
	40 C.F.R. 63 Subpart JJ	National Emission Standards for Hazardous Air Pollutant Emissions: Group IV Polymers and Resins
	40 C.F.R. 63 Subpart EEEE	National Emission Standards for Hazardous Air Pollutants: Organic Liquids Distribution (Non-Gasoline)
	40 C.F.R. 63 Subpart ZZZZ	National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines
	40 C.F.R. 68	Risk Management Plan Requirements and Chemical Accident Provision
		Procedures
	40 C.F.R. Part 82, Subpart F	Ozone depleting substances

State Only:	45CSR4	No objectionable odors.
	45CSR21	To Prevent and Control Air Pollution from the Emission of Volatile Organic Compounds (Sections 37, 38)
	45CSR22	Air Quality Management Fee Program
	45CSR27	To Prevent and Control the Emissions of Toxics Air Pollutants
	45CSR31	Confidential Information
	45CSR42	Greenhouse Gas Emissions Inventory Program

Each State and Federally-enforceable condition of the draft Title V Operating Permit references the specific relevant requirements of 45CSR30 or the applicable requirement upon which it is based. Any condition of the draft Title V permit that is enforceable by the State but is not Federally-enforceable is identified in the draft Title V permit as such.

The Secretary's authority to require standards under 40 C.F.R. Part 60 (NSPS), 40 C.F.R. Part 61 (NESHAPs), and 40 C.F.R. Part 63 (NESHAPs MACT) is provided in West Virginia Code §§ 22-5-1 *et seq.*, 45CSR16, 45CSR34 and 45CSR30.

Active Permits/Consent Orders

Permit or Consent Order Number	Date of Issuance	Permit Determinations or Amendments That Affect the Permit (<i>if any</i>)
R13-0009B	April 5, 2010	
R13-2486A	March 15, 2005	
R13-1886E	February 19, 2009	
R13-2084C	February 18, 2009	
R13-2572B	March 31, 2010	
R13-2678	October 4, 2006	

Conditions from this facility's Rule 13 permit(s) governing construction-related specifications and timing requirements will not be included in the Title V Operating Permit but will remain independently enforceable under the applicable Rule 13 permit(s). All other conditions from this facility's Rule 13 permit(s) governing the source's operation and compliance have been incorporated into this Title V permit in accordance with the "General Requirement Comparison Table B," which may be downloaded from DAQ's website.

Determinations and Justifications

Since latest Permit modification MM02 (issued on July 7, 2009), the following changes made to the Permit during this Permit renewal:

- 1) Updated Description and Design Capacity information for several Tanks (in Section 1.1. Emission Units Table).
- 2) Requirement 3.5.3. - EPA address for reporting was corrected.

- 3) Per Company's request a term "twelve month rolling total" was replaced with "rolling yearly total" (defined in condition 2.1.4) in several requirements for consistency purposes.
- 4) Per Company's request, Storage Tanks names were added to several requirements for clarity.
- 5) Added requirements of Permit R13-2678. This R13 Permit was issued on October 4, 2006, but was not included in any of previous Title V Permit modifications. Permit R13-2678 superseded and replaced Consent Orders CO-R21-97-32, CO-R27-92-18 and CO-R27-98-18. Therefore, all requirements from these Consent Orders were deleted.
- 6) Added LDAR streamlined compliance demonstration language to requirement 4.1.7 (R13-2678, 4.2.1).
- 7) Per Company's request, a phrase "at standard conditions" was added to requirement 4.1.13 for clarity.
- 8) Requirement 4.3.1 – typo was corrected ("Method 9" was replaced with "Method 5") because Method 9 is not used to test for PM emissions, but Method 5 is.
- 9) Recordkeeping requirements 4.4.1, 6.4.3 and 6.4.4 were revised from monthly to quarterly emissions calculations for VOC, acrylonitrile and 1,3 butadiene (in a manner similar to the identical requirements of Part 2-5 of the Title V Permit - 5.2.3, 6.2.1, 7.2.1, 8.2.1, 10.2.1). This revision was based on emissions calculations data from previous years showing significantly lower emissions compared to the emission limits.
- 10) Streamlined Part 63 Subpart JJJ recordkeeping requirements 4.4.4 and 4.4.5 (old numbering) into requirement 4.4.2.
- 11) Streamlined Part 63 Subpart JJJ reporting requirements 4.5.3 and 4.5.7 (old numbering) into requirement 4.5.2.
- 12) Per Company's request, a phrase "include but are not limited" was replaced with "include" in requirements 4.5.4 and 5.1.8.
- 13) Revised monitoring requirement 5.2.3 and added monitoring requirement 5.2.4 per recently updated Permits R13-0009B and R13-2572B (opacity monitoring for boilers is required only while burning fuel oil, not natural gas).
- 14) Removed 40 C.F.R. 63, Subpart DDDDD requirements for existing natural gas fired Boilers #3, #4 and #5 (former conditions 5.1.12, 5.1.13, 5.2.4, 5.3.2, 5.4.7 and 5.5.2 in the initial Title V Permit) and included placeholder language in condition 5.1.11 of the Title V renewal permit. On July 30, 2007, the United States Court of Appeals for the District of Columbia Circuit vacated and remanded the Boiler MACT. As a result of the court's decision, a MACT for this source category will have to be implemented via a 112(j) case-by-case MACT determination or a subsequent 40 C.F.R. 63 proposal. After consultation with US EPA Region III in which DAQ was informed that 112(j) applied to the vacated standard 40 C.F.R. 63, Subpart DDDDD, "National Emission Standards for Hazardous Air Pollutants for Industrial/Commercial/Institutional Boilers and Process Heaters", but that no date of becoming subject was known, the agency determined that inserting a permit condition to address this situation to allow for a permit application shield while US EPA was in the process of re-proposing and re-promulgating a MACT standard was a reasonable course of action and use of limited resources. The agency's current position to delay the 112(j) reviews is based on the September 10, 2009 order filed by the United States District Court for the District of Columbia for US EPA to issue a new Boiler and Process Heater MACT to be proposed by April 15, 2010 and promulgated by December 16, 2010; to maintain national consistency; and to most effectively use agency resources. Due to these facts, the 40 C.F.R. 63, Subpart DDDDD requirements were removed for existing Boilers #3, #4 and #5 placeholder language was included as Condition 5.1.11.

- 15) Revised testing requirement 5.3.1 (40CFR60 Subpart Db) for Boiler #5 - removed initial compliance test section (§60.46b(e)(1)) because the testing was done on 07/01/2005-07/30/2005. The following applicable “30-day performance test” requirement was added:

“§60.46b(e)(4)

Following the date on which the initial performance test is completed or required to be completed under §60.8, whichever date comes first, the owner or operator of an affected facility that has a heat input capacity of 73 MW (250 MMBtu/hr) or less and that combusts natural gas, distillate oil, gasified coal, or residual oil having a nitrogen content of 0.30 weight percent or less shall upon request determine compliance with the NO_x standards in §60.44b through the use of a 30-day performance test. During periods when performance tests are not requested, NO_x emissions data collected pursuant to §60.48b(g)(1) or §60.48b(g)(2) are used to calculate a 30-day rolling average emission rate on a daily basis and used to prepare excess emission reports, but will not be used to determine compliance with the NO_x emission standards. A new 30-day rolling average emission rate is calculated each steam generating unit operating day as the average of all of the hourly NO_x emission data for the preceding 30 steam generating unit operating days.”

- 16) Revised requirement 5.4.2, and added requirements 5.1.14 and 5.4.6 to demonstrate compliance with CO hourly and annual emission limits set forth in requirement 5.1.1. Previously, compliance with these limits was demonstrated through compliance demonstration with Subpart DDDDD (now vacated – see item 13 above).

- 17) Revised reporting requirement 5.5.1 (40CFR60 Subpart Db) for Boiler #5 as follows:

- Initial notification Section 60.49b(a) was deleted – completed on 02/18/2005;
- Initial performance testing Section 60.49b(b) was deleted – completed on 08/08/2005 - 08/16/2005.

- 18) In the requirement 6.2.1, frequency of monitoring of operating hours was specified as “on daily basis” (as per requirement 6.4.1).

- 19) Applicable requirements of 40 CFR 63, Subpart ZZZZ *National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines (RICE)* for Emergency Generator (07-16104) were included under conditions 6.1.6, 6.4.5 and 6.5.1. Subpart ZZZZ was promulgated by EPA on March 3, 2010. It establishes emission limitations and operating limitations for HAPs emitted from RICE located at major and area sources of HAP emissions that have a rating of less than or equal to 500 hp. The Waste Water Treatment Plant Emergency Generator is a stationary compression ignition emergency RICE located at the major source of HAP and is rated at 483 hp. Therefore, the Subpart applies to the engine. Since the generator is “emergency” only, it doesn’t have any emission or operating limitations besides maintenance (changing oil and filter, inspections and replacements) and start-up requirements (minimization of start-up time and idling) in Table 2c of the Subpart. Applicable requirements of the Subpart ZZZZ are attached to the Permit (Attachment F). See **Non-Applicability Determinations** section below (item 4) for the list of not applicable provisions.

Non-Applicability Determinations

The following requirements have been determined not to be applicable to the subject facility due to the following:

- 1) Opacity limitation requirement 6.1.4 (45CSR§§7-3.1, 3.2) for Emergency generator EG1 was left out of the permit regardless it is still part of Permit R13-2486A (section B.1), because emergency generator doesn’t meet the definition of a source operation per 45CSR§7-2.38.

- 2) Reporting requirement 5.5.1 (40CFR63 Subpart Db) for Boiler #5 was revised in the following way: Section 60.49b(c) deleted as not applicable because it describes an alternate method of compliance that the plant did not opt to use. Instead, the continuous emissions monitoring system (CEMS) for NOx was installed (requirement 5.2.2, section §60.48b(b)(1)).
- 3) CAM Rule (40 CFR Part 64) applicability determination – none of the emission units at the Part 1 of 5 facility meets definition of PSEU, therefore CAM is not applicable.
- 4) The following 40 CFR 63, Subpart ZZZZ conditions are not applicable to the facility (Emergency Generator 07-16104):

Conditions	Non-applicability determination
63.6612, 63.6615, 63.6620 Performance Tests	The subject generator does not have any requirements from §63.6612 because none of the initial performance test or initial compliance demonstration requirements in Table 4 or 5 of this subpart applies to it because it is used for emergencies only. As a result, none of the provisions of §63.6615 and §63.6620 applies to the subject generator.
63.6630, 63.6635 Initial compliance/monitoring	The subject generator has no applicable emission limitations or operating limitations because it is used for emergencies only. Therefore, none of the requirements of §63.6630 applies. The monitoring requirements to demonstrate continuous compliance in §63.6635 do not apply.
63.6645 Notifications	As a result of the provisions of §63.6645(a)(5), the site does not have to submit either an initial notification or a notice of compliance status because the generator is used for emergencies only.

Additional clarification for the applicability was provided by Melanie King, EPA, in her e-mail to the Company on June 7, 2010, stating that emergency engines do not have “operating limitations” in this Subpart (“what we call “operating limitations” are the requirements in Table 1b and 2b (pressure drop across catalyst and catalyst temperature)”). Therefore, conditions, listed in the Table above, were determined not applicable.

Request for Variances or Alternatives

None.

Insignificant Activities

Insignificant emission unit(s) and activities are identified in the Title V application.

Comment Period

Beginning Date: August 31, 2010
Ending Date: September 30, 2010

All written comments should be addressed to the following individual and office:

Natalya V. Chertkovsky
Title V Permit Writer
West Virginia Department of Environmental Protection
Division of Air Quality
601 57th Street SE
Charleston, WV 25304

Procedure for Requesting Public Hearing

During the public comment period, any interested person may submit written comments on the draft permit and may request a public hearing, if no public hearing has already been scheduled. A request for public hearing shall be in writing and shall state the nature of the issues proposed to be raised in the hearing. The Secretary shall grant such a request for a hearing if he/she concludes that a public hearing is appropriate. Any public hearing shall be held in the general area in which the facility is located.

Point of Contact

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Response to Comments (Statement of Basis)

None.